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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,153	12/20/2001	Paul T. Watson	BELL-0164/01331	3380

23377 7590 06/15/2004

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EXAMINER	
BELIVEAU, SCOTT E	
ART UNIT	**PAPER NUMBER**
2614	16

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/028,153	Applicant(s) WATSON ET AL.	
	Examiner Scott Beliveau	Art Unit 2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 May 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. Claims 14 and 15 objected to because the recitation of "prior to the time at which the content is requested to be viewed" should be amended to refer to "prior to the future time at which the content is requested to be viewed" in order to provide proper antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the

time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 3-11, 16-20, and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaplan et al. (US Pat No. 6,016,307), in view of Rai et al. (US Pat No. 6,438,110).

In consideration of claims 1, 16, and 19, the Kaplan et al. reference discloses a method, a corresponding computer readable medium and system for content transmission network selection over either a "broadcast" [20] or a "broadband network" [12/14/16] (Col 3, Line 58 – Col 4, Line 12). Accordingly, the embodiment is operable to "identify content to be transmitted" based on "at least on transmission request" by the user, to "determine whether to transmit the content using a broadcast network or a broadband network based on the characteristics of the transmission request", and to subsequently "transmit the content on one of the broadcast network or broadband network" (Col 2, Line 64 – Col 3, Line 41).

The reference discloses that the "particular characteristics of the transmission request" may include the specific time the user needs to use the network and that the user may define priorities in making the routing determination including low cast, high speed, reliability, security, etc. However, the reference does not explicitly state that the particular request of a "future time in which the content is requested to be viewed". The Rai et al. reference discloses a process and apparatus for scheduling reservations across a communication network comprising a plurality of networks wherein the routing algorithm "determines whether to transmit the content using a broadcast network or a broadband network based upon characteristics of the transmission request comprising a future time at which the content

is requested to be viewed" (Rai et al.: Col 5, Lines 48-61; Col 6, Line 30 – Col 7, Line 6; Col 7, Line 35 – Col 8, Line 11). Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the invention was made so as to utilize "characteristics of the transmission request comprising a future time at which the content is requested to be viewed" as taught by Rai et al. as a routing criterion when specifying when a user needs to utilize the network for the purpose of utilizing available variables and parameters in order to arrive at the optimal route in a given situation such as a future scheduled teleconference (Kaplan et al.: Col 8, Lines 4-7).

Claim is 6 rejected wherein "said broadcast network comprises one of a direct to home satellite network, a terrestrial wireless network, and a cable network" (Kaplan et al.: Col 3, Line 58 – Col 4, Line 12).

In consideration of claim 7, Kaplan et al. discloses that the aforementioned "broadband network" may comprise a high speed digital link via a T1 interface, a LAN, or a WAN (Col 3, Line 61 – Col 4, Line 2). The Rai et al. reference discloses that the physical composition of a WAN comprises a "cable network" (Rai et al.: Col 1, Lines 14-23; Col 5, Lines 44-61). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made that "said broadband network comprises one of a digital subscriber line network and a cable network" since it was known in the art that a broadband networks comprise coaxial cable links. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct "said broadband network" using coaxial cable for the purpose of providing an inexpensive and interference resistant means for distributing data over a network.

Claim 8 is rejected wherein "said characteristics of the transmission request further comprise at least one of the geographic location to which the content is to be transmitted and a dollar amount the viewer is willing to pay for the content" (Kaplan et al.: Col 5, Lines 8-11).

Claim 9 is rejected wherein "said characteristics of the content to be transmitted comprise at least one of the following: size of the content, duration of the content, the total number of requests for the content, and the minimum transmission rate on a given network for the content" (Kaplan: Table B).

Claims 10 and 11 are rejected wherein "said characteristics" of the "broadcast network" and the "broadband network comprise at least one of the following: available bandwidth on the network, geographic boundaries of the network, and cost of transmission at a given day on the network" (Kaplan: Table A).

In consideration of claims 3-5, 17 and 20, the Kaplan et al. reference discloses that the particular decision as to which network to utilize may be based on a number of factors including the "available bandwidth" and the "cost of transmitting the content" on the basis of calculating the "product of the total number of units of data in the content and cost of transmission per unit of data" of one network versus another (Col 4, Line 12 – Col 7, Line 44). The Rai et al. reference further introduces the concept of determining the particular network to utilize if there is "sufficient available bandwidth" based on a comparison between the "available bandwidth" and the "minimum transfer rate" required by the connection for a particular route (Col 7, Lines 48-65). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to modify the Kaplan et al.

routing algorithm to further utilize the criteria of determining "sufficient available bandwidth" as taught by Rai et al. for the purpose of ensuring that the network links have the necessary bitrate capacities to cope with transferring data without corrupting it (Rai et al.: Col 2, Lines 3-5).

Claims 22-24 are rejected wherein the "determining" step is based on both the "characteristics of the transmission request and at least one of the following: characteristics of the content to be transmitted, characteristics of the broadcast network, and characteristics of the broadband network" (Kaplan et al.: Col 6, Lines 40-44)

6. Claims 1, 6, 7, 9-16, 18, 19, and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner et al. (US Pat No. 5,761,602), in view of Rai et al. (US Pat No. 6,438,110).

In consideration of claims 1, 16 and 19, Wagner discloses a method, a corresponding computer readable medium and system for content transmission network selection comprising:

a) "identifying the content to be transmitted based on at least one transmission request" (router [3] and/or distributor [5] identifies the content for the content to be delivered to client [2], for example whether the content is e-mail, alerts, notifications as disclosed at col. 4, lines 10-27);

b) "determining whether to transmit the content using a broadcast network" [6] or a "broadband network" [1] (telephone network, ISDN line, cellular modem, or bi-directional cable , see col. 5, lines 5-11 and col. 7, line 52 – col. 8, line 26) "based

upon the characteristic of the request" (the priority or type of the transaction, or the average client waiting time, col. 7, Lines 59-61);

c) "transmitting the content on one of the broadcast or broadband network" (see col. 7, line 65 – col. 8, line 5);

While Wagner et al. teaches using the "characteristics of the request" in order to determine which particular transmission path to utilize including the priority or type of the transaction, the reference does not particularly disclose the usage of a "future time at which the content is requested to be viewed" in connection with the request. The Rai et al. reference discloses a technique for scheduling the delivery of content via multiple networks based on the "future time at which the content is requested to be viewed" (Rai et al.: Col 5, Lines 48-61; Col 6, Line 30 – Col 7, Line 6; Col 7, Line 35 – Col 8, Line 11). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to utilize the scheduling and routing techniques as taught by Rai et al. for the purpose of utilizing intelligent routing techniques so to efficiently schedule services across a communications network (Rai et al.: Col 1, Line 66 – Col 2, Line 2).

Claim 6 is met by the broadcast network comprising one of cable network, terrestrial or satellite network as described at col. 3, lines 40-43, col. 4, lines 14-16 and col. 4, lines 63-65.

Claim 7 is met by bi-directional cable network disclosed at col. 5, lines 5-11.

Claim 9 is met by the characteristic of the content (the size, col. 7, lines 60-61); and bi-directional cable network disclosed at col. 5, lines 5-11.

Claims 10 and 11 are met by the characteristic of the broadcast or broadband network (bandwidth, col. 7, lines 59-60).

Claims 12, 13, 18 and 21 are met by the notification of the transmission characteristics (the transmission network) disclosed at col. 8, lines 26-36.

In consideration of claim 14, the examiner takes OFFICIAL NOTICE that it is notoriously well known in the art to transmit information at a "time prior to the time at which the content is requested to be viewed". Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to do so for the purpose of improving the transmission quality of a latency sensitive presentation such as a movie. For example, a portion of a movie may be transmitted prior to the start time and buffered in order to reduce the effects of network congestion during the presentation.

In consideration of claim 15, the aforementioned step of "transmitting the content" over either network is done so "at the time at which the content is requested to be viewed" such that the information is sent corresponding to the start of the event. For example, sending content associated with a teleconference prior to the start would be disadvantageous given that the participants are not available.

Claims 22-24 are rejected wherein the embodiment may further utilize at least one of "the characteristic of the content" (the size, col. 7, lines 60-61) and/or "the characteristic of the broadcast or broadband network" (bandwidth, col. 7, lines 59-60) in conjunction with determining the appropriate transmission network.

7. Claims 2-5, 17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner et al. (US Pat No. 5,761,602), in view of Rai et al. (US Pat No. 6,438,110), and in further view of Hsu (US Pat No. 6,195,692).

Considering claim 2, Wagner discloses requesting content via broadband network. However, he fails to specifically disclose transmitting a list of available content items over a broadband network and receiving from a broadband network requests for content items as recited in the claims. Hsu discloses a method and corresponding system and computer product program comprising transmitting a list of available content items over a broadband network and receiving from a broadband network requests for content items for the advantage of providing a list of topics or various types of media for the client to select. See the entire reference including but not limited to figures 7, 8 and col. 8, line 43 – col. 10, line 23. It would have been obvious to one of ordinary skill in the art to modify Wagner's system to include transmitting a list of available content items over a broadband network and receiving from a broadband network requests for content items, as taught by Hsu, for the advantage of providing a list of topics or various types of media for the client to select.

Considering claims 3-5, 17 and 20, Wagner discloses determining available bandwidth for the broadcast and broadband network for transmission. However, he fails to specifically disclose determining the cost for transmission of the broadcast and broadband networks as recited in the claims. Hsu discloses a method and corresponding system and computer product program comprising transmitting content via broadcast and broadband networks based on bandwidth needs and usage cost for the advantage of providing the most efficient delivery of content to clients. See figure 12 and col. 15, line 32 – col. 16, line 16. It would have been obvious to one of ordinary skill in the art to modify Wagner's system to include determining the cost for transmission of the broadcast and broadband networks, as taught by Hsu, for the advantage of providing the most efficient delivery of content to clients.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner et al. (US Pat No. 5,761,602), in view of Rai et al. (US Pat No. 6,438,110), and further in view of Huitema ("Routing in the Internet").

In consideration of claim 8, the Wagner et al. reference does not necessarily disclose nor preclude that the "characteristics of the transmission request" may further comprise information pertaining to "geographic location to which the content is to be transmitted or a dollar amount the viewer is willing to pay for the content". The Wagner et al. reference in conjunction with discussing routing/queuing policies makes reference to the "Routing in the Internet" book by Huitema. As is understood by those having ordinary skill in the art bandwidth is a scarce resource and as evidenced by Huitema, certain classes of Internet users demand higher quality service and hence are willing to pay higher prices (Section 14.5 – Differentiated Services). Accordingly, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the Wagner et al. embodiment, if necessary, to further consider the "characteristics of the transmission request" including information such as "a dollar amount the viewer is willing to pay for the content" when selecting the transmission path for the purpose of ensuring/providing a higher quality of service (ex. shorter wait time or network latency) or priority to those requests associated with those customers that are willing to pay more.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as follows. Applicant is reminded that in amending in response to a rejection of

claims, the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objections made.

- The Fell et al. (US Pat No. 6,674,994) reference discloses a system and method for the scheduling of the future delivery of data files including video over a satellite communication link.
- The Aggarwal et al. (US Pat No. 6,631,413) reference discloses a method for selecting a channel and delivery time for digital objects for a broadcast delivery service including multiple channels of varying bandwidth.
- The Maeshima et al. (US Pat No. 6,092,113) reference discloses a method for constructing a VPN having an assured bandwidth.
- The Haddad (US Pat No. 5,555,441) reference discloses a distribution center for delivering video content based on a variable time allowance interval.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Beliveau whose telephone number is 703-305-4907. The examiner can normally be reached on Monday-Friday from 9:00 a.m. - 6:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 703-305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information

about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SEB
June 2, 2004

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